REMARKS

Applicant has carefully reviewed the Final Office Action mailed August 18, 2008 and offers the following remarks.

Claims 1-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,043,569 B1 to Chou et al. (hereinafter "Chou") in view of U.S. Patent No. 7,000,052 B2 to Moon et al. (hereinafter "Moon"). Applicant respectfully traverses the rejection. To establish *prima facie* obviousness, the Patent Office must show where each and every element of the claim is taught or suggested in the combination of references. M.P.E.P. § 2143.03. If the Patent Office cannot establish obviousness, the claims are allowable.

Before addressing the rejection, Applicant provides a brief overview of the present invention. The present invention relates to adaptive interconnect logic, which is adapted to communicate with various types of modules that are plugged into the interconnect logic, and to automatically configure itself to interact with the various modules. For each module interface, the interconnect logic can take on different interface personalities for facilitating communications via the data path. Preferably, the interconnect logic will automatically configure itself to provide the appropriate layer or physical and media access control layers, to effectively communicate with computer premise equipment via the modules. The interface personality will define pin functionality, signal levels, acceptable protocols, and the like. In general, the interconnect logic provides a translator between a control and a datapath system associated with the access equipment and the various modules, which need to be plugged into the access equipment.

Claim 1 recites an adaptive interconnect for providing an interface between multiple modules and a control system comprising, among other things, adaptive interconnect logic associated with a control system interface and a plurality of module interfaces, the adaptive interconnect logic adapted to:

i) negotiate with a module over a control path via one of the plurality of module interfaces to identify an interface personality for the module;

ii) select the interface personality based on negotiations with the module; and

iii) apply the interface personality to the one of the plurality of module interfaces.

Independent claim 7 is directed to a method and has similar limitations as the limitations of claim 1. Thus, claim 7 is patentable for at least the same reasons as set forth below with respect to claim 1.

The combination of Chou and Moon fails to teach or suggest each and every element of claims 1 and 7. In particular, the combination of Chou and Moon does not teach or suggest adaptive interconnect logic adapted to: "i) negotiate with a module over a control path via one of the plurality of module interfaces to identify an interface personality for the module; ii) select the interface personality based on negotiations with the module; and iii) apply the interface personality to the one of the plurality of module interfaces," as recited in claim 1. Neither Chou nor Moon teaches or suggests the claimed interface personality.

Applicant refers to and incorporates by reference its previous arguments as to why the combination of Chou and Moon does not disclose each and every element of the claimed invention, and in particular, the claimed interface personality (See Response filed July 15, 2008, pp. 3-7).

The Patent Office admits that Chou does not teach or suggest selecting the interface personality, but asserts that Moon discloses this limitation in column 1, lines 50-55 (Office Action mailed August 18, 2008, pp. 2, 3, and 9). Applicant respectfully disagrees. Moon simply discloses a selected configuration parameter associated with an input/output card. The configuration parameter of Moon is not equivalent to the claimed interface personality. The claimed interface personality will provide the appropriate interconnection between the control system interface and the module via a plurality of pins.

The configuration parameter of Moon does not provide the functionality of the claimed interface personality. Instead, Moon merely discloses a configuration parameter which is used to identify an aspect of the input/output card to the end user (Moon, col. 1, lines 50-55). The configuration parameter of Moon simply does not establish an interconnection between the claimed control system and the claimed module interface. The configuration parameter of Moon is used to identify something about an input/output card to an end user, which is an entirely different purpose than that of the claimed interface personality, which is to establish an interconnection between the claimed control system and the claimed module interface. The claimed interface personality has nothing to do with providing any sort of identification of an input/output card to an end user, which is the purpose of the configuration parameter of Moon.

Thus, since the configuration parameter of Moon does not provide the functionality of the claimed interface personality, the configuration parameter of Moon cannot be the claimed interface personality.

In addition, according to claim 1, the claimed interface personality is identified based on negotiations between the adaptive interconnect logic and a module over a control path via one of the plurality of module interfaces. The configuration parameter of Moon is not identified based on negotiations between the adaptive interconnect logic and a module over a control path via one of the plurality of module interfaces, as recited in claim 1. The identification that reflects the configuration parameter in Moon is provided by a connector card coupled to the input/output card (Moon, col. 1, lines 65-67; and col. 2, lines 61-67). The configuration parameter of Moon is therefore not identified based on negotiations between the adaptive interconnect logic and a module over a control path via one of the plurality of module interfaces. Since the configuration parameter in Moon is not identified this way, it cannot be the claimed interface personality.

Moreover, according to claim 1, the claimed interface personality is applied to the one of the plurality of module interfaces. The configuration parameter of Moon is not applied to the one of the plurality of module interfaces. The configuration parameter is merely an aspect of the input/output card that is reflected by an identification provided to the end user. The configuration parameter of Moon is not applied to anything, much less to one of the plurality of module interfaces. Thus, the configuration parameter of Moon is not the claimed interface personality for this additional reason.

Thus, for the above reasons, Moon fails to disclose the claimed interface personality. Accordingly, since Moon does not teach or suggest selecting the claimed interface personality, and the Patent Office has admitted that Chou does not teach selecting the claimed interface personality, the combination of Chou and Moon does not teach or suggest each and every element of independent claims 1 and 7. Accordingly, claims 1 and 7 are patentable over Moon and Chou.

Claims 2-6 and 8-12 depend from claims 1 and 7, respectively, and contain all of the limitations of the independent claim from which they depend. Thus, claims 2-6 and 8-12 are patentable based on their dependency from claims 1 and 7.

In addition, certain dependent claims require special mention as they contain additional limitations not taught by the combination of Chou and Moon. Claims 2 and 8 recite the

additional limitation of "wherein different interface personalities can be implemented simultaneously among the plurality of module interfaces." The Patent Office alleges this limitation is taught by Chou in column 4, lines 20-25 and lines 42-46, and column 6, lines 20-28, which the Patent Office asserts discloses "providing the configuration data to units of the switch" (Office Action mailed April 15, 2008, p. 3). Applicant respectfully disagrees. Chou discloses that a configuration module provides configuration data to various components of the switch (Chou, col. 4, lines 20-24 and lines 42-46; and col. 6, lines 20-28). However, the cited portions of Chou do not teach or suggest that **different** interface personalities are implemented **simultaneously** among the plurality of modules, as recited in claims 2 and 8. There is no mention in the cited portions of Chou that the configuration data provided to various components of the switch is different, and there is no mention that the configuration data is implemented simultaneously.

The Patent Office now points to Figure 7 and column 9, lines 39-55 of Chou (see Final Office Action mailed August 18, 2008, pp. 4-5). This portion of Chou merely indicates that the configuration data is sent in 12 byte packets, with the first 4 bytes designated for a destination node identifier and address and the remaining 8 bytes to store payload data, including configuration data. First of all, the various 8 byte payloads of configuration data are all part of the same configuration data for a particular device. Thus, the various 8 byte payloads of configuration data are not different interface personalities. Second, the various 8 byte payloads of configuration data in Chou may be **sent** together as a block of data packets, but they are not **implemented** simultaneously among a plurality of modules, as recited in the claimed invention. Thus, the cited portions of Chou do not teach this additional limitation of claims 2 and 8. Accordingly, claims 2 and 8 are also patentable for this additional reason.

Claim 5 recites the additional limitation that the adaptive interconnect logic is further adapted to:

a) receive a stimulus indicative of a change in personality for the module;

b) renegotiate with the module over the control path via one of the plurality of module interfaces to identify a new interface personality for the module;

c) select the new interface personality based on the renegotiations with the module; and

d) apply the new interface personality to the one of the plurality of module interfaces.

Claim 11 contains similar limitations. Thus, claims 5 and 11 recite that the claimed adaptive interconnect logic is further adapted to renegotiate, select, and apply a new interface personality for the module when it receives a stimulus indicative of a change in personality for the module.

The Patent Office asserts that Chou teaches the limitations of claims 5 and 11 (Office Action mailed August 18, 2008, pp. 5 and 8). Applicant respectfully disagrees. Chou does not teach where the adaptive interconnect logic is further adapted to "receive a stimulus indicative of a change in personality for the module," as recited in claims 5 and 11. Chou does disclose an initialization module that takes control when a reset is asserted (Chou, col. 5, lines 49-50). The initialization module queries the processor subsystem interface for configuration data until receiving an indicator associated with the end of the configuration data (Chou, col. 5, lines 57-60). Thus, the indicator in Chou is an indicator of the end of the configuration data, *i.e.*, that all of the configuration data has been received, and is not indicative of a **change in personality for the module**, as recited in claims 5 and 11.

The Patent Office now alleges that Chou, at column 5, lines 55-62, discloses that the action of the initialization module enables the communication ports after the end of the configuration data has been indicated, and the switch becomes ready to handle network traffic, and that this disclosure is equivalent to the claimed change in interface personality (Office Action mailed August 18, 2008, p. 5). Applicant respectfully disagrees. At best, the cited portion of Chou is reflective of a change in status of the communication ports or the switch. There is no teaching or suggestion of a change in the **interface personality** for the module in the cited portion of Chou. Accordingly, Chou does not teach or suggest where the adaptive interconnect logic is further adapted to "receive a stimulus indicative of a change in personality for the module," as recited in claims 5 and 11. Claims 5 and 11 are therefore patentable for this additional reason.

Moon does not cure the deficiencies of Chou with respect to claims 5 and 11. Moon simply discloses that a configuration parameter may be selected for an input/output card (Moon, col. 1, lines 50-55). Moon does not disclose or suggest adaptive interconnect logic that is further adapted to "receive a stimulus indicative of a change in personality for the module," as recited in

claims 5 and 11. In addition, Moon does not teach or suggest renegotiating with the module to identify and select a **new** interface personality to be applied for the module, as recited in claims 5 and 11. As such, Applicant requests that the rejection of claims 5 and 11 be withdrawn.

The present application is now in condition for allowance and such action is respectfully requested. The Examiner is encouraged to contact Applicant's representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

Respectfully submitted,

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